

feedback information subcarrier, and it is possible to thereby prevent the downlink capacity from reducing. And since the mobile station apparatus spreads the feedback information using a predetermined spreading code for feedback information and maps the spread feedback information about the feedback information subcarrier, the base station apparatus can detect the feedback information subcarrier through the **disspreading despread** processing using the spreading code for feedback information even when there is no additional information.

Change(s) applied
to document,

/A.C.D./ 0132
8/24/2011 [0148] Embodiment 3 may also be applied to Embodiment 1. In this case, even when the

downlink FBSC information is received by error and the mobile station apparatus transmits the feedback information using a subcarrier which is different from that of the FBSC information, the base station apparatus detects the subcarrier on which the feedback information is actually mapped through **disspreading despread** using the spreading code for feedback information, and therefore the base station apparatus can receive the feedback information correctly. When the feedback information is received correctly, it is possible to prevent the amount of retransmission from increasing and improve the system capacity and throughput.

IN THE SPECIFICATION

Please amend the specification as follows:

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[0123] Despreading section 800 ~~despreads~~ despreads subcarriers using a spreading code

for feedback information used to spread a feedback information subcarrier.

⁰¹⁰⁸

[0124] SC decision section 810 outputs a subcarrier having the highest correlation value

as a result of the ~~despreading~~ despreading by despreading section 800 to FB information

reception section 250 as a feedback information subcarrier.

Change(s) applied

to document,

⁰¹²⁷

/A.C.D./ [0143] The data of subcarriers are despread by despreading section 800 using the same

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spreading code as that used for spreading. Furthermore, data of all the subcarriers are despread

using spreading codes for feedback information and the ~~despreading~~ despreading result is output

to SC decision section 810.

⁰¹²⁸

[0144] SC decision section 810 decides that the subcarrier with the highest correlation

value which is the result of despreading ~~despreading~~ using the spreading code for feedback

information is the feedback information subcarrier.

⁰¹³¹

[0147] Thus, according to this embodiment, the mobile station apparatus selects the

downlink subcarrier having the highest reception quality as the uplink feedback information

subcarrier, and therefore the base station apparatus need not transmit information about the